

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 4

PATENT NO. : 7,428,279

APPLICATION NO.: 10/791,244

ISSUE DATE : September 23, 2008

INVENTOR(S) : Yang et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ON THE FACE PAGE

At section (56), U.S. PATENT DOCUMENTS, page 2, left column, after line beginning with "6,128,276" delete "6,137,843 A 10/2000 Chennakeshu et al."

At section (56), U.S. PATENT DOCUMENTS, page 2, left column, delete line beginning with "6,137,848" and insert therefor --6,137,848 A 10/2000 Chennakeshu et al.--.

At section (56), U.S. PATENT DOCUMENTS, page 2, right column, delete line 1, and insert therefor --2003/0026201 A1 2/2003 Arnesen--.

At section (56), FOREIGN PATENT DOCUMENTS, page 2, right column, after line beginning with "EP 1 139 632" delete "EP 1139623 10/2001" and insert therefor --EP 1139632 10/2001--.

At section (56), FOREIGN PATENT DOCUMENTS, page 3, left column, after line beginning with "WO 01/47203 A2" insert --WO 01/52489 7/2001--.

At section (56), FOREIGN PATENT DOCUMENTS, page 3, left column, after line beginning with "WO 01/54305" delete "WO 01/54305 A2 7/2001" and insert therefor --WO 01/54305 A1 7/2001--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 2 of 4

PATENT NO. : 7,428,279

APPLICATION NO.: 10/791,244

ISSUE DATE : September 23, 2008

INVENTOR(S) : Yang et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At section (56), FOREIGN PATENT DOCUMENTS, page 3, left column, after line beginning with "WO 02/054537" delete "WO 02/09977 4/2002".

IN THE SPECIFICATION

At column 1, line 9, before the word "which" insert
--provisional application No. 60/482,333, dated Jun. 25, 2003--.

At column 1, line 41, after the words "transpose (or)", delete "Hermetian)" and insert therefor
--Hermitian)--.

At column 1, line 65, before the word "data" delete "detection" and insert therefor --detecting--.

At column 2, line 16, before the words "the desired", delete "estimating" and insert therefor
--estimation of--.

At column 2, line 56, after the word "communication", delete "system" and insert therefor
--systems--.

At column 3, line 1, after the word "be", insert --the--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 3 of 4

PATENT NO. : 7,428,279

APPLICATION NO.: 10/791,244

ISSUE DATE : September 23, 2008

INVENTOR(S) : Yang et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At column 5, line 19, after the word "correction", delete "uses" and insert therefor --using--.

At column 6, line 19, before the words "If assuming", delete " $\Sigma^1 = E\{\tilde{n}_1 \tilde{n}_1^H\}$ " and insert therefor -- $\Sigma_1 = E\{\tilde{n}_1 \tilde{n}_1^H\}$ --.

At column 6, line 65, after " $H_p H_p^H$ and" delete " $H^f H_f^H$ " and insert therefor -- $H_f H_f^H$ --.

IN THE CLAIMS

At claim 6, column 8, line 32, before the words "the desired", delete "estimating" and insert therefor --estimation of--.

At claim 10, column 9, line 8, before the words "the desired", delete "estimating" and insert therefor --estimation of--.

At claim 16, column 10, line 38, before the words "the desired", delete "estimating" and insert therefor --estimation of--.

At claim 16, column 10, line 47, before the words "prior to", delete "is".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 4 of 4

PATENT NO. : 7,428,279

APPLICATION NO.: 10/791,244

ISSUE DATE : September 23, 2008

INVENTOR(S) : Yang et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At claim 18, column 10, line 59, after the word "vector" delete "is".

At claim 20, column 11, line 15, before the words "the desired", delete "estimating" and insert therefor --estimation of--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.